To: National Organic Standards Board
and
National Organic Program
United States Department of Agriculture
1400 Independence Avenue, SW
Washington, D>C> 20250-0200

From: Eric Sideman, Director of Technical Services
Maine Organic Farmers and Gardeners Association

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We would like to comment on a number of issues facing the National Organic Program that are being considered by the NOSB at the October, 2004 meeting.

1) Certification of Aquatic Animals and use of Fish Meal as a Livestock Feed Supplement

We would like to comment on the proposal of the NOSB Livestock Committee to establish a new task force on standards for wild caught and farmed aquatic animals, and their proposed directive on the use of fish meal as a supplement in livestock feed. These two issues should be considered together because fish meal is made from wild caught fish, it is used as a feed ingredient for farmed aquatic animals, and if farmed aquatic animals are to be labeled organic they would clearly be a livestock product and would fall under the livestock regulations of the National Organic Program Rule. Fish meal use would be regulated in two ways; in its production because it is a wild caught fish, and for its use as a livestock feed component, either as a natural supplement or an organic agricultural product. We support the Directive prepared by the Livestock Committee and recommend that the NOSB accept it.

We feel a need to comment on these two proposals from the NOSB Livestock Committee because we do not want to see rules written that serve one sector of our country at the cost of another. We are particularly interested in environmental costs. Organic standards have always been founded on the principal of reducing environmental impact of production to a minimum. It is important that any guidelines for aquatic production consider the impact of such production on natural populations and ecosystems including contamination with toxins, nutrient contamination from feed and over fishing natural populations of fish.

Not only do organic standards need to address the obvious risk of over fishing wild populations of fish for human consumption, but the indirect impact of the aquaculture on world fish supplies as the result of the use of fish meal

for livestock feed must be considered as well[1]. Fish meal should only be used as a supplement to balance amino acids in livestock feeds, and not be used as a major feed component for a source of protein. We believe that organic livestock should be fed organic agriculture products and that the use of non organic products should be kept to a minimum, even if they are natural. The bulk of energy and protein for livestock, be they aquatic or land animals, should be from organic agriculture production.

The NOSB proposal to set up a new aquatic animal task force, as pointed out by the first Aquatic Animal Task Force, is the next step to develop standards. The first Task force pointed out the reasons why wild caught fish do not meet organic principles, but they did welcome the development of standards for aquaculture.

The original Aquatic Animal Task Force was well balanced and included representatives from a wide array of interested parties, including environmentalists, organic farming, processing and marketing industry representatives, and those with commercial interest in both the wild and aquaculture fishing industry. The Task Force was put together that way to avoid standards being developed that would serve any special interests and not serve the broad interests of the public. We strongly believe that the new task force should also be set up to represent all of these interests. It is the only way that the recommendations can be based on all the science including protecting the environment and the values of the organic community.

1 Naylor, Rosamond et al. 2000 Effect of Aqualculture on World Fish Supplies. Nature 405:29:1017-1024

2) Synthetic Sources of Methionine

We would like to comment on the planned phase out in 2005 of the allowed use of synthetic sources of methionine as an additive in livestock feed. The NOSB recommended that synthetic sources of methionine be permitted until 2005 and that producers use the years between implementation of the Rule and 2005 to develop livestock feed using natural sources of methionine.

Natural sources of methionine do exist and include fish meal, sunflower meal, etc. OFPA limits the approved use of synthetic materials to those for which there are no natural sources, but the NOSB recommended a temporary exception to allow the industry time to change a common practice. The NOSB specifically set a phase out date so organic livestock

production would come into compliance with OFPA. We support this NOSB recommendation.

3)Aquatic Plant Extracts

Section 205.601(j)(1) of the National Rule lists only potassium hydroxide and sodium hydroxide as permitted materials to use when producing aquatic plant extracts. We believe the intent of the NOSB recommendation that led to this listing could be interpreted to include other materials used in the extraction process.

Cell walls of seaweeds contain galactans, which are polymeric
saccharides based largely on repeating units of the six carbon sugar galactose. These polysaccharides form tough, fibrous structures. Partial hydrolysis of these polymers chops the polymeric chain and allow the production of seaweed extracts. The hydrolysis reaction is catalyzed by bases like
sodium hydroxide, potassium hydroxide and potassium carbonate. Only a small amount of base is required, just to get to pH of about 9-10. (Acid would also strongly catalyze hydrolysis, but low pH also changes the chemistry of the sugars, which is undesirable.) (Note that any use of these synthetic materials must be limited to that necessary for the production of the extract, and should not be permitted for the fortification of plant nutrients such as potassium. OFPA prohibits synthetic sources of macronutrients, which includes potassium).

We recommend that potassium carbonate be added to the list of permitted hydroxide materials noted in Section 205.601(j)(1). Potassium carbonate dissolves in water to form potassium cations and carbonate anions. Carbonate in water rapidly equilibrates with bicarbonate and hydroxide, hence the increase in pH. For the purposes of the hydrolytic reaction on polysaccharides, these materials are essentially equivalent. From a process-control point of view, carbonate may be slightly preferable for some reactions because there is no danger of getting the pH above 10 (as might happen if too much hydroxide is added), because only a little too much hydroxide can zoom the pH right on up to 11, 12 and beyond, with disastrous browning reactions on the saccharides.

We believe the intent of the NOSB recommendation was to allow all of these materials that cause the hydrolysis reaction.

4) Pet Food and Cosmetics

We have no objection to the USDA developing organic standards for pet food or cosmetics, **if** the standards represent the basic principles of organic production. Production of organic pet food should follow the basic organic livestock feed standards, e.g., 100% of the agricultural products in the feed should be organically produced. Production of cosmetics and other care products should follow the basic organic processing standards, e.g., 95% of the product be made from organic agricultural products, otherwise it should follow the "Made With" category.